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BARR

August 1, 2012

Mr. Jason Gunter
Remedial Project Manager
U.S. Environmental Protection Agency
Region 7 - Superfund Branch
901 North 5th Street
Kansas City, KS 66101

Re: The Doe Run Company – Bonne Terre Superfund Site, Eastern and Western Portions Quarterly Progress Report

Dear Mr. Gunter:

As required by Article VIII, Section 33 of the Administrative Order on Consent (Docket No. CERCLA-7-2000-0024) and Article VIII, Section 29 of the Administrative Order on Consent (Docket No. CERCLA-7-2000-0025) for the referenced projects and on behalf of The Doe Run Company, a progress report for the period April 1, 2012 to June 30, 2012 is enclosed. If you have any questions or comments, please call me at 573-638-5020 or Mark Nations at 573-518-0800.

Sincerely,

Ty L. Morris, P.E., R.G.
Vice President

TLM/jms
Enclosure
c: Mark Nations – TDRC
Matt Wohl – TDRC (electronic only)
Kathy Rangen – MDNR
Tim Skoglund – Barr Engineering

07WD 4.2

0400

Bonne Terre Mine Tailings Site

Bonne Terre, Missouri

Removal Action - Quarterly Progress Report

Period: April 1, 2012 – June 30, 2012

1. **Significant Developments and Work Performed this Period:**

   a. Completed the second quarter stormwater sampling event for the southern detention basin sampling point (eastern portion). Results of this sample are included with this progress report.

2. **Problems Encountered this Period:**

   a. None.

3. **Significant Developments Anticipated and Work Scheduled for Next Period:**

   a. Complete the third quarter 2012 stormwater sampling event for the southern detention basin sampling point.

   b. Submit a revised version of the Post-Removal Site Control Plan for the Western portion of the Bonne Terre Site to EPA.

4. **Planned Resolutions of Past or Anticipated Problems:**

   a. Not applicable.

5. **Changes in Personnel:**

   a. None.

End of Quarterly Progress Report

July 05, 2012

Allison Olds
Barr Engineering Company
1001 Diamond Ridge
Suite 1100
Jefferson City, MO 65109
TEL: (573) 638-5007
FAX: (573) 638-5001

RE: Bonne Terre - 25/86-0014 **WorkOrder:** 12061225

Dear Allison Olds:

TEKLAB, INC received 1 sample on 6/28/2012 10:20:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Michael L. Austin
Project Manager
(618)344-1004 ex 16
MAustin@teklabinc.com

Client: Barr Engineering Company
Client Project: Bonne Terre - 25/86-0014

Work Order: 12061225
Report Date: 05-Jul-12

This reporting package includes the following:

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Client: Barr Engineering Company
Work Order: 12061225

Client Project: Bonne Terre - 25/86-0014
Report Date: 05-Jul-12

Abbr Definition

CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
DNI	Did not ignite
DUP	Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MB	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
MDL	Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
RL	The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TNTC	Too numerous to count (> 200 CFU)

Qualifiers

- # - Unknown hydrocarbon
- B - Analyte detected in associated Method Blank
- E - Value above quantitation range
- H - Holding times exceeded
- M - Manual Integration used to determine area response
- ND - Not Detected at the Reporting Limit
- R - RPD outside accepted recovery limits
- S - Spike Recovery outside recovery limits
- X - Value exceeds Maximum Contaminant Level

Client: Barr Engineering Company
Client Project: Bonne Terre - 25/86-0014

Work Order: 12061225
Report Date: 05-Jul-12

Cooler Receipt Temp: 1.8 °C

Locations and Accreditations

Collinsville		Springfield		Kansas City	
Address	5445 Horseshoe Lake Road Collinsville, IL 62234-7425	Address	3920 Pintail Dr Springfield, IL 62711-9415	Address	8421 Nieman Road Lenexa, KS 66214
Phone	(618) 344-1004	Phone	(217) 698-1004	Phone	(913) 541-1998
Fax	(618) 344-1005	Fax	(217) 698-1005	Fax	(913) 541-1998
Email	jhriley@teklabinc.com	Email	kmcclain@teklabinc.com	Email	dthompson@teklabinc.com

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2013	Collinsville
Kansas	KDHE	E-10374	NELAP	1/31/2013	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2013	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2012	Springfield
Arkansas	ADEQ	88-0966		3/14/2013	Collinsville
Illinois	IDPH	17584		4/30/2013	Collinsville
Kentucky	UST	0073		5/26/2013	Collinsville
Missouri	MDNR	00930		4/13/2013	Collinsville
Oklahoma	ODEQ	9978		8/31/2012	Collinsville

Client: Barr Engineering Company
Work Order: 12061225
Client Project: Bonne Terre - 25/86-0014
Report Date: 05-Jul-12
Lab ID: 12061225-001
Client Sample ID: BTE-2nd QTR-12
Matrix: AQUEOUS
Collection Date: 06/27/2012 9:50

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 375.2 REV 2.0 1993 (TOTAL)								
Sulfate	NELAP	200		**432**	mg/L	20	06/28/2012 21:39	R165309
STANDARD METHOD 4500-H B, LABORATORY ANALYZED								
Lab pH		1.00		**7.28**		1	06/29/2012 8:01	R165295
STANDARD METHODS 2340 C								
Hardness, as (CaCO3)		5		**700**	mg/L	1	06/28/2012 13:20	R165292
STANDARD METHODS 2540 D								
Total Suspended Solids		6		**< 6**	mg/L	1	06/29/2012 12:40	R165324
STANDARD METHODS 2540 F								
Solids, Settleable		0.2		**< 0.2**	ml/L	1	06/28/2012 11:53	R165271
STANDARD METHODS 5310 C, ORGANIC CARBON								
Total Organic Carbon (TOC)		1.0		**1.4**	mg/L	1	06/29/2012 15:34	R165372
EPA 600 4.1.1, 200.7R4.4, METALS BY ICP (DISSOLVED)								
Cadmium	NELAP	2.00		**< 2.00**	µg/L	1	06/30/2012 3:21	79354
Zinc	NELAP	10.0		**143**	µg/L	1	06/30/2012 3:21	79354
EPA 600 4.1.4, 200.7R4.4, METALS BY ICP (TOTAL)								
Cadmium	NELAP	2.00		**< 2.00**	µg/L	1	07/03/2012 0:22	79356
Zinc	NELAP	10.0		**158**	µg/L	1	07/03/2012 0:22	79356
STANDARD METHODS 3030 E, 3113 B, METALS BY GFAA								
Lead		2.00		**< 2.00**	µg/L	1	06/29/2012 15:22	79353
STANDARD METHODS 3030 B, 3113 B, METALS BY GFAA (DISSOLVED)								
Lead		2.00		**< 2.00**	µg/L	1	06/29/2012 13:25	79351

Client: Barr Engineering Company
Client Project: Bonne Terre - 25/86-0014

Work Order: 12061225
Report Date: 05-Jul-12

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
12061225-001	BTE-2nd QTR-12	Aqueous	5	06/27/2012 9:50

Client: Barr Engineering Company
Client Project: Bonne Terre - 25/86-0014

Work Order: 12061225
Report Date: 05-Jul-12

Sample ID	Client Sample ID / Test Name	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
12061225-001A	BTE-2nd QTR-12	06/27/2012 9:50	06/28/2012 10:20		
	Standard Methods 2540 F				06/28/2012 11:53
12061225-001B	BTE-2nd QTR-12	06/27/2012 9:50	06/28/2012 10:20		
	EPA 600 375.2 Rev 2.0 1993 (Total)				06/28/2012 21:39
	Standard Method 4500-H B, Laboratory Analyzed				06/29/2012 8:01
	Standard Methods 2340 C				06/28/2012 13:20
	Standard Methods 2540 D				06/29/2012 12:40
12061225-001C	BTE-2nd QTR-12	06/27/2012 9:50	06/28/2012 10:20		
	EPA 600 4.1.4, 200.7R4.4, Metals by ICP (Total)			06/28/2012 15:45	07/03/2012 0:22
	Standard Methods 3030 E, 3113 B, Metals by GFAA			06/28/2012 14:54	06/29/2012 15:22
12061225-001D	BTE-2nd QTR-12	06/27/2012 9:50	06/28/2012 10:20		
	EPA 600 4.1.1, 200.7R4.4, Metals by ICP (Dissolved)			06/28/2012 15:02	06/30/2012 3:21
	Standard Methods 3030 B, 3113 B, Metals by GFAA (Dissolved)			06/28/2012 14:05	06/29/2012 13:25
12061225-001E	BTE-2nd QTR-12	06/27/2012 9:50	06/28/2012 10:20		
	Standard Methods 5310 C, Organic Carbon				06/29/2012 15:34

Client: Barr Engineering Company
Work Order: 12061225
Client Project: Bonne Terre - 25/86-0014
Report Date: 05-Jul-12

EPA 600 375.2 REV 2.0 1993 (TOTAL)

Batch R165309 **SampType:** MBLK Units **mg/L**
SampID: MBLK

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate	10		**< 10**						06/28/2012

Batch R165309 **SampType:** LCS Units **mg/L**
SampID: LCS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate	10		**19**	20	0	97.4	90	110	06/28/2012

Batch R165309 **SampType:** MS Units **mg/L**
SampID: 12061225-001BMS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate	200		**617**	200	431.5	92.8	90	110	06/28/2012

Batch R165309 **SampType:** MSD Units **mg/L** RPD Limit **10**
SampID: 12061225-001BMSD

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate	200		**615**	200	431.5	91.6	617.1	0.41	06/28/2012

STANDARD METHOD 4500-H B, LABORATORY ANALYZED

Batch R165295 **SampType:** LCS Units
SampID: LCS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lab pH	1.00		**6.99**	7.00	0	99.9	99.1	100.8	06/29/2012

Batch R165295 **SampType:** DUP Units RPD Limit **10**
SampID: 12061225-001BDUP

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Lab pH	1.00		**7.27**				7.280	0.14	06/29/2012

STANDARD METHODS 2340 C

Batch R165292 **SampType:** MBLK Units **mg/L**
SampID: MB-R165292

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Hardness, as (CaCO3)	5		**< 5**						06/28/2012

Batch R165292 **SampType:** LCS Units **mg/L**
SampID: LCS-R165292

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Hardness, as (CaCO3)	5		**1000**	1000	0	100.0	90	110	06/28/2012

Client: Barr Engineering Company
Client Project: Bonne Terre - 25/86-0014

Work Order: 12061225
Report Date: 05-Jul-12

STANDARD METHODS 2340 C

Batch R165292 **SampType:** MS Units mg/L
SampID: 12061225-001BMS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Hardness, as (CaCO3)	5		1100	400	700.0	100.0	85	115	06/28/2012

Batch R165292 **SampType:** MSD Units mg/L RPD Limit 10
SampID: 12061225-001BMSD

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Hardness, as (CaCO3)	5		1100	400	700.0	100.0	1100	0.00	06/28/2012

STANDARD METHODS 2540 D

Batch R165324 **SampType:** MBLK Units mg/L
SampID: MBLK

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Suspended Solids	6.00		< 6.00						06/29/2012
Total Suspended Solids	6		< 6						06/29/2012

Batch R165324 **SampType:** LCS Units mg/L
SampID: LCS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Suspended Solids	6		97	100	0	97.0	85	115	06/29/2012
Total Suspended Solids	6		106	100	0	106.0	85	115	06/29/2012
Total Suspended Solids	6		107	100	0	107.0	85	115	06/29/2012
Total Suspended Solids	6		102	100	0	102.0	85	115	06/29/2012

Batch R165324 **SampType:** DUP Units mg/L RPD Limit 15
SampID: 12061225-001B DUP

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Suspended Solids	6		< 6				0	0.00	06/29/2012

STANDARD METHODS 5310 C, ORGANIC CARBON

Batch R165372 **SampType:** MBLK Units mg/L
SampID: MBLK

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)	1.0		< 1.0						06/29/2012

Batch R165372 **SampType:** LCS Units mg/L
SampID: LCS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)	5.0		52.0	48.2	0	107.8	90	110	06/29/2012

Batch R165372 **SampType:** MS Units mg/L
SampID: 12061225-001EMS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Total Organic Carbon (TOC)	1.0		5.9	5.0	1.380	90.2	85	115	06/29/2012

Client: Barr Engineering Company
Client Project: Bonne Terre - 25/86-0014

Work Order: 12061225
Report Date: 05-Jul-12

STANDARD METHODS 5310 C, ORGANIC CARBON

Batch R165372 **SampType:** MSD Units **mg/L** RPD Limit **10**
SampID: 12061225-001EMSD

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Total Organic Carbon (TOC)	1.0		**5.7**	5.0	1.380	86.0	5.890	3.63	06/29/2012

EPA 600 4.1.1, 200.7R4.4, METALS BY ICP (DISSOLVED)

Batch 79354 **SampType:** MBLK Units **µg/L**
SampID: MB-79354

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cadmium	2.00		**< 2.00**	2.00	0	0	-100	100	06/29/2012
Zinc	10.0		**< 10.0**	10.0	0	0	-100	100	06/29/2012

Batch 79354 **SampType:** LCS Units **µg/L**
SampID: LCS-79354

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cadmium	2.00		**44.6**	50.0	0	89.2	85	115	06/29/2012
Zinc	10.0		**486**	500	0	97.1	85	115	06/29/2012

Batch 79354 **SampType:** MS Units **µg/L**
SampID: 12061225-001DMS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cadmium	2.00		**42.6**	50.0	0	85.2	75	125	06/30/2012
Zinc	10.0		**600**	500	143	91.5	75	125	06/30/2012

Batch 79354 **SampType:** MSD Units **µg/L** RPD Limit **20**
SampID: 12061225-001DMSD

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Cadmium	2.00		**42.7**	50.0	0	85.4	42.6	0.23	06/30/2012
Zinc	10.0		**601**	500	143	91.5	600.3	0.07	06/30/2012

EPA 600 4.1.4, 200.7R4.4, METALS BY ICP (TOTAL)

Batch 79356 **SampType:** MBLK Units **µg/L**
SampID: MB-79356

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cadmium	2.00		**< 2.00**	2.00	0	0	-100	100	06/29/2012
Zinc	10.0		**< 10.0**	10.0	0	0	-100	100	06/29/2012

Batch 79356 **SampType:** LCS Units **µg/L**
SampID: LCS-79356

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cadmium	2.00		**50.3**	50.0	0	100.6	85	115	06/29/2012
Zinc	10.0		**516**	500	0	103.3	85	115	06/29/2012

Client: Barr Engineering Company
Work Order: 12061225
Client Project: Bonne Terre - 25/86-0014
Report Date: 05-Jul-12

EPA 600 4.1.4, 200.7R4.4, METALS BY ICP (TOTAL)

Batch 79356 **SampType:** MS Units µg/L
SampID: 12061225-001CMS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cadmium	2.00		**48.9**	50.0	0	97.8	75	125	07/03/2012
Zinc	10.0		**666**	500	158.3	101.5	75	125	07/03/2012

Batch 79356 **SampType:** MSD Units µg/L RPD Limit **20**
SampID: 12061225-001CMSD

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Cadmium	2.00		**48.8**	50.0	0	97.6	48.9	0.20	07/03/2012
Zinc	10.0		**667**	500	158.3	101.8	665.8	0.23	07/03/2012

STANDARD METHODS 3030 E, 3113 B, METALS BY GFAA

Batch 79353 **SampType:** MBLK Units µg/L
SampID: MB-79353

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lead	2.00		**< 2.00**	2.00	0	0	-100	100	06/29/2012

Batch 79353 **SampType:** LCS Units µg/L
SampID: LCS-79353

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lead	2.00		**15.8**	15.0	0	105.5	85	115	06/29/2012

Batch 79353 **SampType:** MS Units µg/L
SampID: 12061225-001CMS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lead	2.00		**15.7**	15.0	1.966	91.8	70	130	06/29/2012

Batch 79353 **SampType:** MSD Units µg/L RPD Limit **20**
SampID: 12061225-001CMSD

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Lead	2.00		**14.9**	15.0	1.966	86.4	15.7384	5.26	06/29/2012

STANDARD METHODS 3030 B, 3113 B, METALS BY GFAA (DISSOLVED)

Batch 79351 **SampType:** MBLK Units µg/L
SampID: MB-79351

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lead	2.00		**< 2.00**	2.00	0	0	-100	100	06/29/2012

Batch 79351 **SampType:** LCS Units µg/L
SampID: LCS-79351

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lead	2.00		**14.3**	15.0	0	95.3	85	115	06/29/2012

Client: Barr Engineering Company
Client Project: Bonne Terre - 25/86-0014

Work Order: 12061225
Report Date: 05-Jul-12

STANDARD METHODS 3030 B, 3113 B, METALS BY GFAA (DISSOLVED)

Batch 79351 **SampType:** MS Units µg/L

SampID: 12061225-001DMS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lead	2.00		**14.9**	15.0	0.489	96.0	70	130	06/29/2012

Batch 79351 **SampType:** MSD Units µg/L RPD Limit **20**

SampID: 12061225-001DMSD

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Lead	2.00		**14.4**	15.0	0.489	92.9	14.8904	3.17	06/29/2012

Teklab, Inc.
Environmental Laboratory

Receiving Check List

http://www.teklabinc.com/

Client: Barr Engineering Company
Work Order: 12061225
Client Project: Bonne Terre - 25/86-0014
Report Date: 05-Jul-12

Carrier: Ron Korte
Received By: SRH

Completed by: Timothy W. Mathis
On: 28-Jun-12

Reviewed by: Elizabeth A. Hurley
On: 28-Jun-12

Pages to follow: Chain of custody [1] Extra pages included [0]

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp °C	1.8	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☐	Lab ☑	NA ☐			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☐	No VOA vials	☑
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers	☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐		
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA	☑

Any No responses must be detailed below or on the COC.

Custody seal(s) intact on shipping container/cooler.

Print Form

Teklab Chain of Custody

Pg. 1 of 1 Workorder 12061225

5445 Horseshoe Lake Road ~ Collinsville, IL 62234 ~ Phone: (618)344-1004 ~ Fax:(618)344-1005

Barr Engineering Co.

1001 Diamond Ridge

Jefferson City | MO | 65109

Bonne Terre - 25/86-0014

Are the samples chilled? (•) Yes ( ) No with: (•) Ice ( ) Blue ice

Preserved in ~~Lab~~ ☑ Field SLH 6/28/12

Cooler Temp 1.8 Sampler Chris Schulte

Comments: Invoice to Mark Nations. Results to Allison Olds and Mark Nations, mnations@doerun.com
Matrix is surface water.
Metals = Cd, Pb, Zn Custody seal intact when courier picked up

Contact Allison Olds eMail aolds@barr.com Phone 573-638-5007 Requested Due Date Standard Billing/PO Per contract with Doe Run.

Lab Use	Sample ID	Sample Date/Time	Preservative	Matrix	pH	T.S.S.	Sulfate	Settleable Solids	T.O.C.	Total Metals	Dissolved Metals	Hardness				
12061225 001	BTE 2nd QTR-12	6/27/12 / 9:50	Unpres	Aqueous	☒	☒	☒	☒	☒	☒	☒	☒	☐	☐	☐	☐
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
			Unpres	Aqueous	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Teklab Inc. Courier PickUp

Relinquished By *	Date/Time	Received By	Date/Time
Chris Schulte / Barr	6/27/12 / 12:30	[signature]	6/28/12 845
[signature]	6/28/12 10:20	Stephanie Haynes	6/28/12 10:20AM

* The individual signing this agreement on behalf of client acknowledges that they have read and understand the terms of this agreement and that they have the authority to sign on behalf of client.